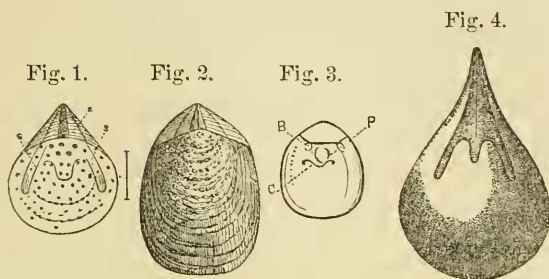


NOTICE OF A NEW BRACHIOPOD FROM THE LEAD-BEARING ROCKS
AT MINE LA MOTTE, MISSOURI.

BY F. B. MEEK.

LINGULELLA LAMBORNI, Meek.



1. *Lingulella? Lamborni*; being a view of the area and interior of a ventral valve, enlarged to $2\frac{1}{2}$ diameters: s, s, are lateral internal scars, and (a) the area with its mesial furrow for the peduncle.

2. *Lingulella Davisii*; being an internal cast of the dorsal valve, with a view of area of the ventral valve and its mesial furrow. Nat. size, after Mr. Davidson.

3. An outline internal view of another specimen of same species, showing internal scars as understood by Mr. Salter; C, being supposed to represent the anterior retractors; and B, on each side, the sliding muscles. Nat. size, after Mr. Salter.

4. *Lingulepis pinniformis*; being a view of internal cast of a ventral valve, showing the trilobate scar within. Enlarged about 2 diam. From N. Y. Regents's 16th State Cab., Nat. Hist. Report, pl. 6, fig. 16, for comparison with fig. 1.

Shell small, compressed, broad-subovate, being about one-fifth longer than wide. Ventral valve pointed at the beak, from which the nearly straight lateral slopes diverge at an angle of about 35° , to near the middle of each lateral margin, from near which these margins round forward into the regularly rounded front; false cardinal area well developed, and extending back with the beak nearly one-fourth the length of the valve behind that of the other valve, and having its mesial furrow for the peduncle well defined, with on each side of it a diverging longitudinal line extending from the apex of the beak, so as to form the margins of the false area, which is transversely striated; interior marked by numerous little irregularly scattered pits, which are largest posteriorly and diminish in size forward; while near the anterior margin very obscure traces of minute radiating striae are sometimes seen; internal scars presenting a trilobate appearance, 1871.]

there being a short mesial rounded lobe nearly reaching the middle of the valve, and near half way between this and each posterior lateral margin, there is a long, slender, diverging lateral lobe or impression. Dorsal valve shorter than the other, and subcircular in form, its beak being apparently a little truncated; interior showing the same pitted appearance seen in the other valve; visceral and muscular impressions unknown. Surface of both valves marked by fine concentric striae.

Length, 0.26 inch; breadth, 0.22 inch; convexity, about 0.04 inch.

From the foregoing description and illustrations, it will be seen that this shell agrees exactly in the nature of its pitted interior, and in its furrow in a triangular false area, for the reception of the peduncle, with the type of Mr. Salter's genus *Lingulella* (*L. Davisii*, Salter). The scars of the interior, however, do not agree with the muscular impressions as made out by Mr. Salter (see the cut fig. 3, reproduced from one of Mr. Salter's figures). Still, as Mr. Davidson says, he could not see these impressions as Mr. S. represented them, even on carefully examining his typical specimens; it is quite probable that the latter gentleman, although a careful, conscientious observer, may not have made them out exactly right, especially as they are said by Mr. Davidson to be *very* dimly defined.

I have represented, in fig. 1, these scars of the interior of the ventral valves as they *appear* to be in the form under consideration, though they are obscurely defined, and seem to me to be rather the impression of the visceral sack, than those of the muscles. By comparing these impressions, as represented by the accompanying fig. 1, with those seen in the type of the genus *Lingulepis* of Hall (reproduced by the annexed fig. 4), it will be seen that they agree very nearly. I therefore suspect that *Lingulepis* and *Lingulella* may yet be found to have been proposed for the same genus, as we have here a shell with the area and furrow for the peduncle of *Lingulella*, possessing scars of the interior corresponding to those of *Lingulepis*. If so, our species will have to be called *Lingulepis Lambornii*, as the latter generic name has priority of date. It is barely possible, however, that our shell may belong to an intermediate undefined genus, possessing some of the characters of both of the genera mentioned; especially as the type of *Lingulepis* shows no traces of the pitted

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interior seen in our shell and the type of *Lingulella*; and so far as I have been able to determine, from examining casts of *Lingulepis*, they do not appear to have possessed a false area with a furrow for the peduncle, seen in the shell under consideration and in Mr. Salter's type.

Compared with Mr. Salter's type (*L. Davisii*), as illustrated by Mr. Davidson, our shell will be readily distinguished specifically, by its much smaller size, proportionally shorter form, more pointed beak, and less straightened lateral margins. The interior of its ventral valve also shows no traces of a small ridge indicated by a linear furrow in the internal casts of Mr. Salter's species.

Locality and position. The specimens were discovered by Robert H. Lamborn, Esq. (after whom I have named the species), in a thin bed of shale between two beds of limestone bearing heavy deposits of galena, at Mine La Motte, Madison Co., Missouri. They were sent by that gentleman to Prof. Leidy, of Philadelphia, and by him referred to me for study. I am not acquainted with the age of the rocks at Mine La Motte, never having seen any other fossils from there, but from the affinities of this single fossil to *Lingulella* from the Lingula flags of Wales, and to *Lingulepis* from the Potsdam sandstone of Minnesota, it would seem that these lead deposits belong to a much older period than the Galena and Dubuque lead-bearing limestone, of Illinois and Iowa, although the latter is known to belong to the Lower Silurian.